

AMENDMENTS TO THE CLAIMS

1.(currently amended): An image on-demand transmitting device performing an image transmission by an on-demand request issued from a receiving side, comprising:

a unit obtaining an image;

a buffer memory unit temporarily storing the image with a full quality and a full frame rate obtained by said image obtaining unit;

a quasi-moving image transmitting unit transmitting a quasi-moving image acquired by degrading a quality and a frame transmission rate of the image obtained by said image obtaining unit; and

a transmitting unit performing a predetermined process for an image read from said buffer memory unit, and for transmitting the image to the receiving side upon a request issued from the receiving side so that the receiving side displays the quasi-moving image with the quality and the frame transmission rate of the image transmitted.

2.(original): The image on-demand transmitting device according to claim 1, wherein said transmitting unit reads a particular single image frame from said buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

3. (original): The image on-demand transmitting device according to claim 1, wherein

said transmitting unit reads a particular single image frame from said buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side, and at the same time, said transmitting unit sequentially reads a succeeding or preceding image frame, which is stored in said buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

4.(original): The image on-demand transmitting device according to claim 1, wherein said transmitting unit reads a plurality of particular image frames from said buffer memory unit, generates a single image frame by reducing and synthesizing the plurality of particular image frames, encodes the generated frame to a sharp image, and transmits the encoded image to the receiving side.

5.(original): The image on-demand transmitting device according to claim 1, wherein said transmitting unit encodes to a sharp image only an image that is partially extracted from an image frame read from said buffer memory unit, and transmits the encoded image to the receiving side.

6.(original): The image on-demand transmitting device according to claim 5, wherein which portion to be extracted from the image frame read from said buffer memory unit is determined by selecting a predetermined extraction pattern on the receiving side.

7.(original): The image on-demand transmitting device according to claim 1, wherein

serial numbers are assigned to respective image frames of the quasi-moving image, and a serial number is specified with a predetermined method on the receiving side, so that a transmission request is issued to said transmitting unit.

8.(currently amended): An image on-demand transmitting device performing an image transmission by an on-demand request issued from a receiving side, comprising:

an image obtaining unit obtaining an image;

a first buffer memory unit temporarily storing the image with a full quality and a full frame rate obtained by said image obtaining unit;

a second buffer memory unit reading the image stored in said first buffer memory unit and for storing the read image with a full quality and a full frame rate, by a request issued from the receiving side;

a quasi-moving image transmitting unit transmitting a quasi-moving image acquired by degrading a quality and a frame transmission rate of the image obtained by said image obtaining unit; and

a controlling/transmitting unit making said second buffer memory unit store the image read from said first buffer memory unit by an on-demand request issued from the receiving side, and for performing a predetermined process for an image read from said second buffer memory unit, and transmitting the image to the receiving side by a request issued from the receiving side so that the receiving side displays the quasi-moving image with the quality and the frame transmission rate of the image transmitted.

9.(original): The image on-demand transmitting device according to claim 8, wherein

said controlling/transmitting unit reads a particular single image frame from said second buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

10.(original): The image on-demand transmitting device according to claim 8, wherein said controlling/transmitting unit reads a particular single image frame from said second buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side, and at the same time, said controlling/transmitting unit sequentially reads a succeeding or preceding image frame, which is stored in said second buffer memory unit, encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

11.(original): The image on-demand transmitting device according to 9 or 10, further comprising

a thumbnail buffer memory unit putting into a thumbnail a quasi-moving image frame when a temporary storage request is issued from the receiving side to said second buffer memory unit, and for storing the thumbnail, wherein

the receiving side identifies an image frame stored in said second buffer memory unit by specifying a thumbnail stored in said thumbnail buffer memory unit.

12.(original) The image on-demand transmitting device according to claim 8, wherein

said controlling/transmitting unit reads a plurality of particular image frames from said second buffer memory unit, generates a single image frame by reducing and synthesizing the plurality of particular image frames, encodes the generated image frame to a sharp image, and transmits the encoded image to the receiving side.

13.(currently amended): An image on-demand transmitting method performing an image transmission by an on-demand request issued from a receiving side, comprising:

- (a) obtaining an image;
- (b) temporarily storing the image with a full quality and a full frame rate obtained in the step (a);
- (c) transmitting a quasi-moving image acquired by degrading a quality and a frame transmission rate of the image obtained in the step (a); and
- (d) performing a predetermined process for an image stored in the step (b), and transmitting the image to the receiving side, by an on-demand request issued from the receiving side so that the receiving side displays the quasi-moving image with the quality and the frame transmission rate of the image transmitted.

14.(original): The image on-demand transmitting method according to claim 13, wherein the step (b) reads a particular single image frame from the image stored in the step (b), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

15.(original): The image on-demand transmitting method according to claim 13, wherein

the step (d) reads a particular single image frame from the image stored in the step (b), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side, and at the same time, the step (d) sequentially reads a succeeding or preceding image frame, which is stored in the step (b), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

16.(original): The image on-demand transmitting method according to claim 13, wherein

the step (d) reads a plurality of particular image frames from the image stored in the step (b), generates a single image frame by reducing and synthesizing the plurality of particular image frames, encodes the generated image frame to a sharp image, and transmits the encoded image to the receiving side.

17.(original): The image on-demand transmitting method according to claim 13, wherein

the step (d) encodes to a sharp image only an image that is partially extracted from the image frame read from the image stored in the step (b), and transmits the encoded image to the receiving side.

18.(original): The image on-demand transmitting method according to claim 17, wherein

which portion to be extracted from the image frame read from the image stored in the step (b) is determined by selecting a predetermined extraction pattern on the receiving side.

19.(original): The image on-demand transmitting device according to claim 13, wherein

serial numbers are assigned to respective image frames of the quasi-moving image, and a serial number is specified with a predetermined method on the receiving side, so that a transmission request is issued in the step (d).

20.(currently amended): An image on-demand transmitting method performing an image transmission by an on-demand request issued from a receiving side, comprising:

- (a) obtaining an image;
- (b) temporarily storing the image with a full quality and a full frame rate obtained in the step (a);
- (c) reading the image stored in the step (b) and storing the read image, by a request issued from the receiving side;
- (d) transmitting a quasi-moving image acquired by degrading a quality and a frame transmission rate of the image obtained in the step (a); and
- (e) storing in the step (c) an image read from the image stored in the step (b) by an on-demand request issued from the receiving side, and performing a predetermined process for an image read from the image stored in the step (c) and transmitting the image to the receiving side by a request issued from the receiving side so that the receiving side displays the quasi-moving image with the quality and the frame transmission rate of the image transmitted.

21.(original): The image on-demand transmitting method according to claim 20, wherein the step (e) reads a particular single image frame from the image stored in the step (c), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

22.(original): The image on-demand transmitting method according to claim 20, wherein the step (e) reads a particular single image frame from the image stored in the step (c), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side, and at the same time, the step (e) sequentially reads a succeeding or preceding image frame, which is stored in the step (c), encodes the read frame to a sharp image, and transmits the encoded image to the receiving side.

23.(original): The image on-demand transmitting method according to 21 or 22, further comprising:

(f) putting into a thumbnail a quasi-moving image frame when a temporary storage request in the step (c) is issued from the receiving side, and storing the thumbnail, wherein

the receiving side identifies an image frame stored in the step (c) by specifying a thumbnail stored in the step (f).

24.(original): The image on-demand transmitting method according to claim 20, wherein the step (e) reads a plurality of particular image frames from the image stored in the step (b), generates a single image frame by reducing and synthesizing the plurality of particular image frames, encodes the generated image frame to a sharp image, and transmits the encoded image to the receiving side.